What Is Claimed Is:

1. A fuel injector (1), in particular an injector for fuel-injection systems of internal combustion engines, comprising a piezoelectric or magnetostrictive actuator (4) which, via an hydraulic coupler (13), actuates a valve-closure member (18) provided on a valve needle (17), the valve-closure member cooperating with a valve-seat surface (20) to form a valve-sealing seat, the hydraulic coupler (13) having a master piston (12) and a slave piston (14),
wherein a coupler gap (15) formed between the master piston (12) and the slave piston (14) is dimensioned such that it is closed in the cold state of the fuel injector (1) and opens via temperature-related linear deformation of the actuator (4) as the temperature of the fuel injector (1) increases.

2. The fuel injector as recited in Claim 1,
wherein the gap width of the coupler gap (15) amounts to between 25 μm and 50 μm at a temperature of 20 degrees Celsius and a fuel pressure of 0.5 MPa.

3. The fuel injector as recited in Claim 1 or 2,
wherein the hydraulic coupler (13) penetrates a sleeve (21), which abuts against a spring (23) via a flange (22) connected to the sleeve (21).

4. The fuel injector as recited in Claim 3,
wherein the spring (23) is braced against a disk (24) connected to the slave piston (14) by force locking.

5. The fuel injector as recited in Claim 3 or 4,
wherein the sleeve (21) has a shoulder (25) beyond which the slave piston (14) projects axially by a length h_k.

6. The fuel injector as recited in Claim 5,
wherein the overall lift h_{ges} of the actuator (4) corresponds to the length h_k in the cold state of the fuel injector (1).

7. The fuel injector as recited in Claim 5 or 6, wherein a lift h_{ges} is equal to the axial width of the coupler gap (15) formed between the master piston (12) and the slave piston (14), and the overall lift h_{ges} of the actuator (4) is equal to the sum of the partial lift h_w and the length h_k in the warm state of the fuel injector (1).

8. The fuel injector as recited in one of Claims 5 through 7, wherein the length h_k is between 40 μm and 70 μm.